

What is claimed is:

1. An apparatus for producing a mold, comprising:
a measuring device for measuring a shape of a mold
material produced by casting;
a computer into which measurement data from this
measuring device is inputted; and
a mold working machine controlled by the computer to
work said mold material and produce a mold from the mold
material,
wherein said computer has storage means for storing
said measurement data and mold design data, and computing
means for computing data for making said mold working
machine work a reference plane and a product forming
plane of said mold material to reduce a work amount of
the product forming plane of said mold material based on
these measurement data and model design data.

2. The apparatus for producing the mold according
to claim 1,

wherein said computing means previously makes said
mold working machine work said reference plane, and
thereafter computes data for making said mold working
machine work said product forming plane with the worked
reference plane as a supporting surface of said mold
material in said mold working machine.

3. The apparatus for producing the mold according
to claim 2,

wherein working capability data of said mold working
machine is stored in said storage means, and after
computing what portions of said product forming plane are
worked and how many times they are worked, based on the
working capability data, said computing means makes said
mold working machine work said product forming plane.

4. The apparatus for producing the mold according to claim 1,

wherein said computer has display means for displaying an envelope model of said mold material generated based on said measurement data and a mold model generated based on said mold design data, and operation means for bringing the envelope model into close proximity of said mold model by moving said envelope model in directions of three axes orthogonal to one another respectively and rotating it around the three axes, and by its being in close proximity thereof, the computation to reduce the work amount of said product forming plane is performed in said computing means.

5. The apparatus for producing the mold according to claim 4,

wherein bringing said envelope model into close proximity of said mold model means placing all parts of said mold model inside said envelope model, and bringing a product forming plane of said envelope into close proximity of the product forming plane of the mold model.

6. The apparatus for producing the mold according to claim 1, further comprising a cast mold model working machine for producing a cast mold model used for producing said mold material,

wherein an estimated amount of deformation at the time of casting of said mold material is stored in said storage means, data including this estimated amount is sent to said cast mold model working machine, and said cast mold model is produced by said cast mold model working machine based on this data.

7. The apparatus for producing the mold according to claim 6,

wherein said estimated amount stored in said storage unit is resettable based on said measurement data.

8. The apparatus for producing the mold according to claim 1,

wherein said mold working machine comprises a numerically controlled machine tool.